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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,597	04/04/2008	**Lanny Franklin**	24002.0013U3	1640

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EXAMINER	
LEVY, NEIL S	

ART UNIT	PAPER NUMBER
1615	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,597	FRANKLIN ET AL.	
	Examiner	Art Unit	
	NEIL LEVY	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-58* is/are pending in the application.

4a) Of the above claim(s) *2-16,18,36-38 and 56-58* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,17,19-35 and 39-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-58* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2009,2007,2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II, species of root knot nematodes, thymol and glucan particles, in the reply filed on 7/19/2010 and interview of 7/23/2010 is acknowledged. The traversal is on the ground(s) that the compositions to be the special technical feature of the three argued for methods (killing, making, and "use".) . This is not found persuasive because We do not see the compositions as a basis for the special technical feature, since terpene components are known. The claim 39 methods of making compositions do not incorporate methods of killing nematodes, so at this time, will not be rejoined. However, claim 1 will be considered.

The requirement is still deemed proper and is therefore made FINAL.

ClaimS 2-16, 18, 36-38, 56-58 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species and invention , there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/19/2010.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim1, 17,19-35, 39-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"Component" is ambiguous, and can mean other than a specific, structurally identified terpene, inclusive of terpenoids, sesquiterpenes, derived components and delayed and continuous delivery formulations including the non-specified terpene, for example. Claim 35 is ambiguous; 100% citral and 50% citral and 50% b-ionone are 200%. The basis for the per cent should be claimed.

Claims 26-27, 30-35, 47, and 48 do not specify the basis of the per cent claimed. Claim 47 does not refer to an identifiable reaction. Claim 49 recites a "true " solution- what is the limitation intended over "solution" .

Claim1,17, 19-35, 39-55 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific terpenes, for example, citral or those of claim 7,, does not reasonably provide enablement for ANY terpene components, which can be specific terpene compounds, or derivatives, combinations, essential oils, and compositions of added ingredients to constitute a component. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The attempt to control any given nematode with the wide range of compounds claimed could only be done with extensive experimentation. The only data showing efficacy is with combinations with surfactants. Only citral and a few terpenes showed any efficacy. Thymol and citral was no better than citral alone. There is no basis for assuming thymol, or any other terpene, would be effective, without testing.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 38 U. S. C. 112, the first paragraph have been described inn re Wands, 8 USPQ2D 1400 (Fed Cir. 1988). Among these factors are (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims. (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that instant disclosure fails to meet the enablement requirement for the following reasons:

(1) The nature of the invention: claims are to unqualified control and death by non-specific agents,
(2) The state of the prior art shows the use of these compounds for specific functions.
(3) The relative skill of those in the art. The relative skill of those in the art is high.
(4) The predictability or unpredictability of the art. The unpredictability of the art is very high.
(5) The breadth of the claims. The claims are very broad
(6) The amount of direction or guidance presented is sufficient for one to try.
(7) The presence or absence or working examples. There are some, but only with specific agents.
(8) The quantity of experimentation necessary extensive-there is no known levels of amount useful for any specific agent against any specific organism shown to exhibit death & destruction, without experimentation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim1 is rejected under 35 U.S.C. 102(a & e) as being anticipated by FRANKLIN WO 03/020024.

See summary; the instant compositions are shown applied to plants. As such, they would also kill nematodes present in their habitat, the plants.

Claims 1 & 17 are rejected under 35 U.S.C. 102(b) as being anticipated by BESSETTE WO 00/53020.

BESSETTE discusses the use of methods of nematode control utilizing essential oils with reduced non-target toxicity (summary.) These include thymol (page 4) with excipient components, including microcapsules (page 6, top.)

ClaimS 1,17 are rejected under 35 U.S.C. 102(b) as being anticipated by CALVET, 2001 or OKA, et al 2000 , or SOLER-SERRATOS, et al '96 , or SANGWAN et al '85 or KOKALIS-BURRELL et al 1999 & 2002, or ESTEVAN et al -2001, or BAUSKE et al '94.

These are examples of relevant art demonstrating it was quite well known to control nematodes, inclusive of the elected Root Knode nematodes shown by

CALVET & OKA & SOLER-SERRATOS, using thymol and other essential oils & terpenes, and with various excipients & adjuvants.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 17, 19 -26,30,32-34,39-43,50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over BESSETTE WO 0053020 in VIEW OF PANNELL EP 0242135.

BESSETTE discusses the use of methods of nematode control utilizing essential oils with reduced non-target toxicity (summary.) These include thymol (page 4) with excipient components, including microcapsules (page 6, top.)

Specific use of yeast formulae was not evident. However, as above with the general methods of control of nematodes as shown by numerous investigators in the field of nematode control, the use of yeast & other fungal sources of cell wall for microencapsulation of active pharmacological & agricultural ingredients was also well known. It is exemplified here by PANNELL.

PANNELL teaches the advantages of the environmentally safer use of yeast microcapsules with enhanced stability (page 2), having less lipid content (page 2, lines 24-36.) The microcapsules are yeast, Baker's yeast, of whole cells (page 2, lines 28-50.)

The encapsulated material (Example II) includes terpenes and terpene components-clove oil, and other essential oils (Examples I, III-VII and page 3, lines 9, 12, 13.) The instant claim 39 method is seen as combining the terpene component, essential oils, with yeast cell, heating and incubating (page 3, lines 14-37.) Pre-treatment with alkali, solvents or acid and then freeze-drying or other processing (page 3, lines 50-55) can be performed.

Although waste stream source is not evident, the yeast encapsulated]products have not been shown by applicant to be critically different from any other yeast source. Controlled release of pesticides is another advantage of the encapsulated material (page 4, lines 7-12) which can be 50-75% encapsulant (page 3, lines 39-46.)

The instant processing; to produce terpene component pesticides of yeast cell microcapsules is shown but for the use of nematocides, and with surfactants. However, BESSETTE teaches these components as nematocides in carriers inclusive of microcapsules, and with surfactants at page 6 inclusive of the claim 29 forms (page 7, mid-page.) Application is of 0.01-95% of the composition, with 0.001-10% actives (page 8, last paragraph.) essential oils, eugenol, was shown effective when applied to soil, against root-knot nematodes (Example 2.) claim 8 of BESSETTE specifies thymol.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made desiring to utilize pest control means, to use any of art recognized means, as of BESSETTE, modified as desired to increase stability, dispersibility,compatability of ingredients, processing ease, & reduced toxicity to handlers.

All the critical elements of the instant are disclosed. The amounts and proportions of each ingredient are result effective parameters chosen to obtain the desired effects. It would be obvious to vary the form of each ingredient to optimize the effect desired,

depending upon the particular species and application method of interest, reduction of toxicity, cost minimization, enhanced, and prolonged, or synergistic effects.
It has not clearly been established by an objective showing of some unobvious and/or unexpected result that the administration of the particular adjuvants, excipients, and concentration of actives and carrier provides any greater level of prior art expectation as claimed. There is no non-obvious and/or unexpected results obtained since the prior art is well aware of the use yeast & glucan for formulation preparation and the use of additives for the functionality for which they are known to be
used is not a basis for patentability.

Applicant has not provided any objective evidence of criticality, nonobvious or unexpected results that the administration of the particular ingredients' or concentrations provides any greater or different level of prior art expectation as claimed, and the use of ingredient for the functionality for which they are known to be used is not basis for patentability.

IT would have been Obvious to try thymol and other terpenes of BESSETTE in the PANNELL microcapsules with expectation of success of encapsulation of any of the essential oils, and application to nematodes with expectation of control in consideration of the 2007 supreme court decision in KSR V TELEFLEX @ 82 USPQ 2d @ 1385

The instant invention provides well known old art recognized compounds, with well known art recognized effects, applied by well known art recognized methods to achieve improved control as is well known in the art.

. ***Double Patenting***

Claim1,17, 19-35, 39-55 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim1-31, 35-47, 52-66, 69, 82 of copending Application No. 11/597116 as US 2010/0040656

. Although the conflicting claims are not identical, they are not patentably distinct from each other because The 11/- applications anticipates the instant claims.

.This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1,17, 19-35 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-17, 22-31, 35-45 of copending Application No10/488130 as US 2004/0248764

Although the conflicting claims are not identical, they are not patentably distinct from each other because The 10/488130 application anticipates the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NEIL LEVY whose telephone number is 571-272-0619. The examiner can normally be reached on Tuesday-Friday, 7 AM to 5:30 PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT A. WAX can be reached on 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ NEIL LEVY/
Primary Examiner, Art Unit 1615

9/17/2010